CI
AG4461

WEST RIDING OF YORKSHIRE COUNTY COUNCIL.

TROPICAL
8 -OCT 1925

SIXTEENTH

ANNUAL REPORT

OF THE

School Medical Officer,

ON THE

Medical Inspection and Treatment of School Children,

For the Year ended 31st December, 1923.

Presented to the Child Welfare Sub-Committee, 7th May, 1924.

S. C. & S., O.

WEST RIDING OF YORKSHIRE COUNTY COUNCIL.

TROPICAL DISEASES BUREAU
LIBRARY
8 -OCT 1925

SIXTEENTH

ANNUAL REPORT

OF THE

School Medical Officer,

ON THE

Medical Inspection and Treatment of School Children,

For the Year ended 31st December, 1923.

Presented to the Child Welfare Sub-Committee, 7th May, 1924.

CHILD WELFARE SUB-COMMITTEE.

Consisting of 12 Members from the West Riding Education Committee and 12 Members from the West Riding Public Health and Housing Committee.

County Alderman A. K. Blackburn.
,, ,, J. J. Brigg.
,, ,, L. Cresswell (Vice-Chairman).
,, ,, W. A. Durnford.
,, ,, D. Hardaker.
,, ,, Sir J. P. Hinchliffe.
,, ,, P. R. Jackson.
,, ,, J. Thornton.
,, ,, Miss Hermione Unwin.
County Councillor E. Beaumont.
,, ,, F. Blakeley.
,, ,, H. Crabtree.
,, ,, J. Drabble.
,, ,, R. Gill.
,, ,, G. B. Hillman.
,, ,, J. R. Mawson.
,, ,, R. N. Penlington.
,, ,, Ven. Archdeacon Phipps (Chairman)
,, ,, T. Tomlinson.
,, ,, T. C. Watson.
,, ,, E. C. Woodman.
Miss M. Hinchliffe.
Mrs. E. Thorpe.
One vacancy.

Report of the School Medical Officer

for the Year ended 31st December, 1923.

In this Report the suggestions of the Chief Medical Officer of the Board of Education are followed as closely as possible, and the numbering of the Sections and Sub-Sections corresponds to "Schedule to Form M. 6, Dec., 1920."

Extent of Area, Number of Schools, etc.—The West Riding Elementary Education Area consists of 1,610,827 acres, and includes 850 Public Elementary Schools, or 1,216 Departments, and in December, 1923, there were 192,764 scholars on the roll.

For educational purposes this area is mapped out into 117 districts, in each of which there is a District Sub-Committee, and these again are grouped into 25 Divisions, each with a Divisional Clerk as the local representative of the Education Authority.

The school population is altering slightly in distribution. The development of the coal-fields around Doncaster is causing an influx of population to this district and throwing some strain on existing schools. (The housing needs of this area are not being adequately met, and there is a considerable degree of overcrowding which is causing concern to all who are engaged in safeguarding the health of the children. On the western side of the County, along the slopes of the Pennines, the population is nearly stationary, and the pressure on the existing school accommodation is not increasing.)

1. STAFF.

School Medical Officer and County Medical Officer—Jas. Robt. Kaye, M.B., C.M., D.P.H.

Asst. School Medical Officer—Reginald Lawrence, M.D., D.P.H.

Area.		
No.	Centre.	School Medical Inspectors.
1	Keighley ...	William B. Watson, L.R.C.P. & S.
2	Ilkley ...	Nora M. Allan, M.B.
3	Harrogate ...	Josephine Coupland, M.B., B.S., D.P.H.
4	Halifax ...	Janet M. Macmillan, M.B.
5	Leeds ...	Leslie D. Stephen, M.B.*
6	Wakefield ...	George W. Fleming, L.R.C.P. & S., D.P.H.
7	Pontefract ...	James Wm. Cairns, M.D., D.P.H.
8	Huddersfield	Lydia K. Kerr, M.B., D.P.H.†
9	Barnsley ...	Archibald C. Lindsay, M.B.
10	Doncaster ...	Edward J. Tyrrell, M.D.
11	Rotherham ...	Lilian M. Davy, M.B., D.P.H.
12	Sheffield ...	John Teare, M.D., D.P.H.
		School Dentists.
3	Harrogate ...	George M. Raeburn, L.D.S.
6	Wakefield ...	Bernard R. Townend, L.D.S.
8	Huddersfield	Walter H. Petrie, L.D.S.
10	Doncaster ...	James M. Macdonald, L.D.S.
12	Sheffield ...	Stephen P. Ludbrook, L.D.S.
		Part-time School Dentists.
	Castleford Normanton	Claud Wyatt, L.D.S.
	Worsborough	Arthur Bowler, L.D.S.
		School Oculists (part-time).
		Dr. H. Tomlin. Dr. W. Oliver Lodge. Dr. L. T. Wells‡

---

* Resigned Nov., 1923. Succeeded on Dec. 1st, 1923, by Dr. Mary Russel M.B., D.P.H.

† Resigned Feb., 1923. Succeeded by Dr. Thomas Dawson, who resigned i September, and was succeeded on October 1st by Dr. Edward J. Clark

‡ Appointed Oct. 1, 1923.

* Resigned Nov., 1923.

Staff (continued).	No. on Sta
School Nurses who assist School Dentists (whole-time)	6
School Nurses (whole-time)	6
School Nurses and Health Visitors (whole-time) ...	86
School Nurses employed by District Nursing Associations and Local Authorities (part-time) ...	65
Clerical Staff—School Medical Inspection Section ...	5

GENERAL.

In the year 1923 no development of the Medical Inspectio Staff has taken place. Where a new Child Welfare Centre h been opened it has been used as a School Clinic.

The restrictions on the range of medicaments used at the School Clinics have remained. This is regrettable for this reason —that it completely prevents any observations on the comparative efficiency of various suggested remedies being made, and no deduction can therefore be made as to the most economical methods of treatment. Manufacturers' samples have been issued to selected clinics from time to time for trial. This is done chiefly in the endeavour to find a speedy and reliable cure for such troublesome and obstinately resistent conditions as ringworm.

One Elementary School has been opened, and one Secondary School—Wath-on-Dearne—but this has not had a medical inspection.

School Medical Inspectors working in areas where there is no dental service continue to deplore the fact that the condition of the children's mouths leaves a great deal to be desired. Recommendations for treatment when the only means of treatment is a private dentist very rarely produce any result.

The Health Visitors in areas where there is no oculist service ask despairingly when an Oculist will be appointed for a particular area. The growing arrears of children who have been recommended for further examination of the eyes, with a view to getting glasses, cannot be contemplated with equanimity. They feel that their work of following up "eye cases" is futile and farcical where the children are far away from facilities for these special examinations. The problem facing the parents of these children is of some magnitude: railway fares and refreshment, loss of a day, cost of getting someone to look after the children remaining at home, and if, as not infrequently happens, the examination is not completed and the prescription for glasses issued on the first visit then it has to be repeated.

Staff Changes.—Dr. Kerr, School Medical Inspector for the Huddersfield District resigned—*multis flebilis causa*—in February, after 9 years' service, and her place was taken by Dr. Thomas Dawson, formerly of the Tuberculosis Staff. He resigned on the ground of health, and was succeeded by Dr. Clark.

Dr. Stephen (Leeds Area) resigned in November, and Dr. Mary Russell was appointed to take charge of medical inspection in this area.

Dr. Wells was appointed part-time Oculist for six months, from October, for an area around Wakefield. This appointment was made of limited duration, as Dr. Wells could not undertake the work of a wide area.

(2) CO-ORDINATION (See Report for 1922).

The work of the Medical and Nursing Staff is carefully watched with this end in view. Every circumstance coming to the notice of the School Medical Officer, which points to a defect in co-ordination, is made the subject of a general minute to ensure its being widely and lucidly known and its recurrence avoided. In the change of Nursing Staff, which is inevitable, the new nurses taking up duty, although instructed specially in their duties, require occasional advice about procedure. The circulation of general minutes at intervals on subjects brought to the surface by the difficulties of individual nurses serves to keep the whole co-ordination of work up to date. The lessening of a nurse's area to manageable dimensions and the allocation to her of all the nursing duties in her area serves to avoid overlapping.

The co-operation of the Tuberculosis Officer and the services of the County Bacteriological Laboratory are mentioned in other Sections.

The nurses generally are welcomed when they visit. Many of them inform me that they are now welcomed and treated with frankness and candour where they were once repulsed with resentment and suspicion. This change of front is not effected at once: it is only brought about by persevering and undaunted efforts over a considerable length of time to give help to parents who may be at first disposed to reject it. The length of time which it takes to acquire this confidential position furnishes a strong argument for aiming at the greatest possible stability in the nursing service, for it is clear that the value of a nurse's work is in direct ratio to her success in reaching this position of confidence.

(3) THE SCHOOL MEDICAL SERVICE IN RELATION TO PUBLIC ELEMENTARY SCHOOLS.

School premises are reported upon by the School Medical Inspectors as part of their routine duties. The reports ultimately reach the District Education Sub-Committee and are often contested. There is no doubt that many of the Schools are suffering from lack of repair. Playgrounds, especially, are rough and uneven, and the worst of them are unpaved, so that they become muddy in wet weather and dusty in dry weather. The school atmosphere suffers, for in both cases earth is carried into the school and increases the dustiness of the atmosphere.

The conditions of the offices at times are desperate. Their proper use, which might at this date be expected, is a hope only imperfectly realised. However, after several generations of teaching, it may at last become an integral part of the child's mental make-up, and not a piece of theoretical instruction to be discarded.

Several reports have been received from the School Medical Inspectors relating to the lack of ventilation, and the cause has often been found to be due to the want of proper heating, whereby the rooms could be kept warm although the windows and ventilators were opened. On sending these reports to the Education Committee matters have rapidly been improved.

(4) MEDICAL INSPECTION.

(a) Description of Arrangements.

The Board of Education Schedule of Medical Inspection has been followed completely. The Head Teacher receives a preliminary notice and estimates the number of children in each age group which is due for examination. When the date of inspection is fixed he sends out notices to parents and gives them an appointment to enable them to be present when their children are examined.

The Head Teacher fills up the Record Card for each child, with the height and weight and regularity, or otherwise, of the child's attendance at school. The child's academic progress is not entered, but children who are unsatisfactory in this respect are often presented as "Specials."

The age groups examined have been (I) Entrants, (II) Intermediate group (8 years old), (III) Leavers Group (12-14 years). A "Special" group is one of varying dimensions and includes children not in one of the "age groups" due for routine examination, but who for any reason appear to require a medical examination.

There are three classes in the Infants' Departments and six standards in the Mixed Departments. On the assumption that the school population is evenly distributed through these nine divisions of the school, and that they move forward evenly in an annual wave, the number of children whose inspection is due each year is estimated to be 44% of the school population, thus:—

Entrants	one-ninth, or	11%
Intermediates	one-ninth, or	11%
Leavers	one-ninth, or	11%
Specials and re-examinations	one-ninth, or	11%
		44%

In addition to these groups, all children wearing glasses or for whom glasses have been prescribed are brought under review to see that they are wearing their glasses and that their glasses fit.

(c) Early Ascertainment of Crippling Defects.

The School Attendance Officer learns of the existence of children of school age who for any reason are unable to attend school. These are examined and reported on (Form D.E.40) by the Medical Staff. Those children who can attend school are examined by the School Medical Inspector. Crippling defects as a rule are due to congenital defects, birth paralysis and infantile paralysis. They occur before or at birth or within the first two years of life. Their successful treatment depends on early skilful and persevering treatment, and its initiation is to a large extent in the hands of the general practitioners.

(d) Very little disturbance of school arrangements takes place except in the case of overcrowded schools, when the overcrowding is temporarily increased.

(5) FINDINGS OF MEDICAL INSPECTION.

A complete statistical account of the findings of Medical Inspection is given in the Appendix.

(a) Uncleanliness has decreased. This may be said at once, but the efforts of the Health Visitors cannot be relaxed for a moment, for there still exist in many of the schools a few children who are neglected and dirty, suffer from Pediculosis, and are capable of contaminating clean children. The School Medical Inspectors and Health Visitors often express the wish that some " direct action " could be undertaken in these cases and the children be cleansed. No *ad hoc* machinery exists for this purpose, but the equipment of Fever Hospitals, with their baths and disinfector (for the children's clothes—not for the children), would seem to be the readiest instrument. *A priori*, considerable moral effect must accrue from the rude and forcible removal of a few delinquents for cleansing purposes. At present the existing means of dealing with these cases where persuasion has failed is to exclude the children from school until they are satisfactory, and, if they remain unsatisfactory, prosecute the parents for not causing them to attend school.

(b) Minor Ailments include Blepharitis, Conjunctivitis, Ringworm, Scabies, Impetigo, Septic Sores, Minor Injuries, and are referred to under separate sections.

(c) Tonsils and Adenoids.—In the examination of children increase of the adenoid tissue of the nose and naso-pharynx was noted in 1499 cases as requiring treatment, and 684 were noted for observation. This caution is necessary in order to avoid giving an ill-considered opinion on this question, and to avoid recommending operation where the condition is one of obstruction due to temporary causes. It is significant that the diagnosis of adenoids is made more often in the winter when catarrhal conditions are prevalent than in the summer.

(d) Tuberculosis among elementary school children.

	55,249 Routine Examinations.		8,324 Special Examinations.	
	Treatment.	Observation.	Treatment.	Observation.
Pulmonary Tuberculosis—				
Definite ...	179 (0·32%)	25 (0·04%)	48 (0·57%)	20 (0·24%)
Suspected ...	321 (0·58%)	39 (0·07%)	48 (0·57%)	15 (0·18%)

These figures approximate very closely to those of previous years and are not likely to vary much in totals. Perhaps a more interesting feature is the variation of incidence in different localities. In the South Yorkshire coal fields—especially in the Dearne Valley—there seems to be a heavy incidence of Tuberculosis among children of school age, and during the year enquiries have been made at Wombwell, Goldthorpe (in the Bolton-upon-Dearne District), and Swinton, on the incidence of Tuberculosis among children. While the special enquiries seemed to show that there was no real increase of Tuberculosis among children in these areas, and the numerous notifications indicated a greater closeness of scrutiny by School Medical Inspectors and co-operation between Medical Inspectors and District Tuberculosis Officers, some statistics of mortality from Tuberculosis point to the fact that there are differences in the incidence of Tuberculosis in different parts of the County. Comparisons of the districts of Rotherham and Sowerby Bridge have been made to show that in the former district the incidence of Tuberculosis is heavier on children than on adults and in the latter district it is heavier on adults than on children.

In the figures quoted for the year 1923 definite Tuberculosis of the lungs was diagnosed in 204 routine examinations and in 68 special examinations, while 360 children examined at routine examinations and 63 specials were suspected.

Diagnosis is particularly difficult in these cases and often impossible on one examination, depending as it does on observation of minute detail and the judicious balancing of possibilities. On the one hand the opportunities of infection are ubiquitous and authorities declare that most children react to Tuberculin tests before they are five years old, showing that they have been been infected with Tubercle bacilli though they may not have Tuberculosis, and the percentage of persons having scars of old Tuberculosis at the apex of the lungs, though dying of other causes than Tuberculosis, is very high (70% to 80%). For these reasons many people consider that the Tuberculosis of the Lungs in adolescents and adults is due to infection with Tubercle bacilli in infancy and childhood, the infective organisms remaining dormant for years.

On the other hand, many of the children who have been diagnosed as tubercular make a return to excellent health, and in doing so inevitably raise in the doctor's mind the question whether the diagnosis of Tuberculosis was justified.

Laboratory tests are not yet perfect, though progress is being made. They are at present very complicated and demand a high degree of technique for their performance, and their application is in inverse ratio to their complexity and difficulty.

X-ray photography is very helpful, especially when the photographs are interpreted by the Clinicians and the photographers in collaboration.

The difficulties of diagnosis may be illustrated by the experience of a military Hospital where men were sent for confirmation of the diagnosis of Tuberculosis. About 25% were positive. Similar statistics are given by a French physician (Dr. E. Riot, of Paris), who gives figures of 72·7% to 82·7% of patients regarded as Tubercular who subsequently proved **not** to be Tubercular. These statements are somewhat pontifical in nature, as their authors do not, themselves, attempt to inform weaker diagnosticians how they **prove** the non-tubercular nature of these 75% of wrongly diagnosed cases.

In the case of adults it is true that an incorrect diagnosis of Pulmonary Tuberculosis entails economic and family disturbances which cannot be lightly undertaken, but an incorrect diagnosis in children is not so serious a matter, as the consequences to relatives are not so far reaching, and practically all children who have been diagnosed as suffering from Pulmonary Tuberculosis do suffer from marked debility and malnutrition, and these conditions at least get cured while the patients are undergoing treatment for Tuberculosis.

Tuberculosis in children (with the exception of "open" Tuberculosis of the lungs) is quite curable when detected promptly and as promptly treated, and in view of the widely held opinion previously mentioned that adult Tuberculosis is due to infection in childhood it would seem that the struggle against Tuberculosis is likely to yield the best results when directed against Tuberculosis of children, hence the growing use of preventoria. For these reasons a certain proportion of incorrect diagnosis may be regarded with equanimity from the administrative point of view, and there will be no diminution in the effort to attain the highest degree of accuracy in diagnosis.

(e) Skin Diseases.—Of the children examined at routine medical inspections, 1·94% were found to be suffering from some sort of skin disease. Several cases of long standing ringworm have been enquired into at the request of District Sub-Committees, and it has been the almost invariable experience that where these cases did exist they had been withdrawn from the treatment given at the School Clinic and had not had equivalent compensatory treatment of a persevering character at home.

In several instances ringworm had been nearly eradicated by the industry and zeal of the nurse at the school clinic by the time holidays occurred, and during the holidays it has increased again to its original dimensions and the work has had to be begun again. Previous reports have called attention to the fact that skin diseases, and especially ringworm, are more readily and expeditiously dealt with in areas possessing a school clinic than where no such facilities exist.

(f) External Eye Diseases—chiefly inflammation of the margin of the eyelids, conjunctivitis and phlyctenulæ—are associated with a poor standard of nutrition. Simple conjunctivitis is apt to be dismissed with the home-made diagnosis of "cold in the eye." It may be the starting point of severe and destructive inflammation. Some of the cases tend to remain in the subacute stage for a long time—showing nothing more than redness and slight swelling of the palpebral conjunctiva and secreting a little pus. Several cases have dated their onset from an attack of measles. These unfortunate children are subject to recurrent attacks of ulceration with attendant symptoms of inflammation, lachrymation and photophobia, so severe that they can scarcely open their eyes to find their way about. These recurrent ulcerations are liable to cause scarring of the cornea with impairment of vision. Such children obtain home treatment or "out-patient" hospital treatment, but probably the best line of treatment would be a long stay in a Convalescent Home.

I visited the Dalton Council Infants' School to make enquiries about the children there who suffered from "Pink Eye," as reported in the Annual Report for 1920. Some of the children suffered from slight recurrences (or re-infections) for a short time after the first attack, but all are now quite well.

(g) **Vision** is tested by Snellen's test types. The figures giving the numbers of children defective in eyesight are found in Tables II and IIa. The subject has been fully discussed in previous reports.

Clothing is generally good. Its shortcomings—an appropriate word—seem to lie in faulty distribution. The tendency to load the trunk and expose the limbs is very pronounced. Public opinion on the subject is very conservative. In secondary schools the prescribing of a nearly uniform costume does tend to provide an antidote to this unwise practice.

As an example of how sturdy conservatism can resent suggestions and help in the matter of clothing, I may instance the case of a school where the Head Teacher instituted a sewing lesson in which the girls under the Head Teacher's dictation replaced safety pins and other emergency devices on their own clothes by buttons, tapes, or hooks and eyes, and the parents took them off and sent the girls back to school without them.

Footgear.—There seems to be a growing practice of having shoes for indoor school wear. This is done in many secondary schools and is a great advantage in carrying out physical drill—and lessening the noise in school. A pair of light shoes would seem to be an essential to physical drill and dancing. It is possible to get shoes for this purpose at nearly cost price where the teacher can purchase a large quantity. It is not forgotten that this purchase is an addition to an expense which many parents, owing to the short life of a pair of boots, already find a grievous burden.

Malnutrition.—Dr. Fleming has been impressed with the faulty nutrition of children in his area (No. 6, which has a large mining population):—

> "The first question I had to consider was—when is a child to be considered undernourished? By far the best guide is weight in relation to height, the standing height, without shoes, being used, neither weight for age nor

height for age being of much value in determining the question of nutrition, as these are subject to wide variations from such causes as race, family inheritance, etc. The only admissible standard is therefore weight for height, although certain deviations from the average even of weight for height are compatible with good health and also with normal nutrition. How wide the variation from the average must be to be placed in the abnormal group is an arbitrary question, and not all observers agree. The great majority, however, have considered that if any child under 12 years old is 10 per cent. or more below the average weight for height he may be placed in the malnutrition group. For those over 12 a slightly wider deviation may be allowed. Of course this standard is not absolutely flawless, as it does not allow for the stunted child who may show a proper relation of weight and height but be far below the normal in both. Age, therefore, must be taken into account. Of two children of the same height but of different ages, the older should be the heavier. Having adopted the above standard I confined my enquiry to children aged 12 and under. Below I give figures of those who fell into the malnutrition group, as measured by this standard. For various reasons only 2,000 cases have been considered and out of this number 30·8% were ten per cent. or more below the average weight for height ratio, and therefore fell into this group. These figures take no account of stunted children unless their weight-height ratio was 10% below the average. A fairly large percentage were undersized while maintaining the normal weight-height ratio."

He attributes it largely to feeding, which is faulty because of want of balance in the ingredients and not so much to shortage of food.

The remedies he suggests are " improved study and teaching of hygiene, especially on the side of diet."

He considers that in No. 6 area there is a large percentage of children who are undersized and this is becoming a characteristic of mining areas.

This failure to attain full development is attributed by Dr. Fleming largely to an ill-balanced diet which is above all deficient in accessory food factors or vitamins. A similar line of speculation has been followed by an experimental worker* who, making comparisons of the results of his experiments in feeding animals and " the large number of undersized, ill-developed children and adults that we can see any day in the streets of any big town," says " the question is forced upon us:—Is this vitamin underfeeding . . . . going on on a large scale in our population?"

*Cramer, Lancet, March 29th, 1923, p. 628.

Ear Disease and Hearing.—Hearing is tested by a standard whisper, using numbers or unfamiliar or unexpected words which the child is asked to repeat as soon as it hears the examiner. This precaution is taken to discount an intelligent child arriving at the correct answer by intuition, not by actually hearing the whispered word. Many unsuspected cases of unilateral and some of bilateral deafness are detected in this way.

(6) INFECTIOUS DISEASE.

The following table shows a list of Schools and Departments closed for sickness during the year:—

Disease.	Schools or Departments closed by Order of Local Sanitary Authority. Schools.	Dept.	Schools or Departments closed by Local Education Authority. Schools.	Dept.
Measles	93	100	—	4
Whooping Cough ...	18	15	—	1
Scarlet Fever ...	4	—	—	—
Diphtheria ...	—	2	—	—
Chicken Pox ...	9	6	2	—
Mumps	12	9	—	—
Influenza	15	7	—	—
General Sickness ...	4	1	—	1
	155	140	2	6

(7) FOLLOWING UP.

The Nurses' activities in making sundry inspections in the Schools and visits to the homes of the school children are shown in the following return:—

No. of Nurses.	No. of School Visits.	No. of Home Visits.
158	7958	33146

That so many visits could be made and so few complaints arise is itself eloquent of the Nurses' tactfulness in carrying out difficult duties.

(8) MEDICAL TREATMENT.

The forms of medical treatment available for the school child are as before (1) its own medical man, (2) the School Medical Inspector and Health Visitor at the School Clinic, (3) the District Tuberculosis Officer at the Dispensary and—through him—the Sanatorium and Hospital for Surgical Tuberculosis, (4) the County Oculists and Dentists, (5) the General and Cottage Hospital, (6) Beds rented by the West Riding County Council in West Kirby Convalescent Home. The forms of treatment under (2), (3), (4), and (6) are provided by the County Council; those under (1) and (5) are private arrangements.

The defective child is in every case first referred to its own medical practitioner. If for any reason that source of treatment is not available one of the other forms of treatment is resorted to.

There are 15 School Clinics staffed by whole-time Medical Inspectors. Medical Officers in charge of 42 Child Welfare Centres are general practitioners who see school children. Speaking generally of the work of the School Clinics there is no doubt that it enables children with contagious skin diseases to return to school much earlier than they would do if left to the ministrations at home. Again, as in 1922, School Medical Inspectors assert that where a School Clinic exists cases of disease get better much quicker than elsewhere. The prompt and efficient treatment which diseases of this class obtain at the School Clinic has no rival in any other source of medical treatment.

Previous years' experience has been repeated in the treatment of Ringworm. In several instances where Ringworm has occurred in considerable numbers and been nearly eradicated by the exertion of the nurse at the School Clinic the occurrence of school holidays has diminished the regularity of attendance at the Clinic and the progress made has been lost. When school re-opened it was found that the numbers of cases had increased during the holidays.

(a) Minor Ailments.—The work of the School Clinics in the treatment of Minor ailments is shown in Table IV (a).

(b) Tonsils and Adenoids are not treated by operation, but after-treatment in the form of instruction in nasal breathing is given.

Several School Medical Inspectors working in areas where there is a dental service have expressed the opinion that the children's throats have improved and have attributed the improvement to the elimination of sepsis from the mouth by the dentist's activities. It may not be out of place to mention that in a large out-patient department of a hospital there was a long list of children waiting for operative removal of tonsils and adenoids. The staff was inadequate to do this at once, and in order to prepare them for operation they were handed over to the dental department to have their mouths cleaned. By the time that their turn came to be operated on many were found to be so improved that they no longer required operation.

Dr. Davy, from the examination of more than 4,000 children, finds the correlation of decayed teeth with tonsils and adenoids more in the Infant and Intermediate groups than in the Leaver group.

Relation of Decayed Teeth and Enlarged Tonsils.

No. examined.	Class I. (No carious teeth.)	Class II. (One or two carious teeth.)	Class III. (Two to four carious teeth.)	Class IV. (Four or more carious teeth.)
Leavers 1,559.	313. 2%	600. 38·4%	584. 37·4%	42. 2·6%
Tonsils + 2	24 (7·6%)	39 (6·5%)	43 (7·3%)	3 (7·1%)
Also had Adenoids ...	9 (2·8%)	12 (2·0%)	16 (2·7%)	2 (4·7%)
Tonsils + 1	18 (5·7%)	43 (7·1%)	38 (6·5%)	6 (14·2%)
Also had Adenoids ...	7 (2·2%)	27 (4·5%)	29 (4·9%)	3 (7·1%)
Mid-Group 1,071.	109 (10·0%)	337 (31·4%)	552 (51·5%)	71 (6·6%)
Tonsils + 2	5 (4·5%)	20 (5·0%)	39 (7·0%)	7 (9·8%)
Also had Adenoids ...	1 (0·9%)	7 (2·0%)	14 (2·5%)	3 (4·2%)
Tonsils + 1	7 (6·4%)	30 (8·9%)	42 (7·6%)	4 (5·6%)
Also had Adenoids ...	2 (1·3%)	8 (2·3%)	18 (3·2%)	3 (4·2%)
Infants 1,462.	273	410	632	139
Tonsils + 2	13 (4·7%)	17 (4·1%)	29 (4·5%)	9 (6·4%)
Also had Adenoids ...	3 (1·0%)	3 (0·7%)	5 (0·7%)	1 (0·7%)
Tonsils + 1	13 (4·7%)	26 (6·3%)	36 (5·6%)	6 (4·3%)
Also had Adenoids ...	6 (2·1%)	7 (1·7%)	12 (1·8%)	3 (2·1%)

(c) Tuberculous children are sent to the nearest Tuberculosis Dispensary for treatment but make a certain number of attendances at the School Clinics so that they may not be lost sight of by the School Medical Inspector.

(h) Dental Defects.—The scheme of requiring payment for dental treatment has not had the deterrent effect which had been somewhat apprehensively expected, but the effect of the scheme was not uniform in all areas. In the coal-mining area chiefly an adverse result ensued. In one typical colliery area the percentage of children accepting treatment had been satisfactorily rising until the present scheme of payment came into force, when it fell from 90% to 8%. Where the Head Teacher is enthusiastic about hygiene and health he often gives a lesson on the subject of teeth to the children when the dentist's visit is imminent. The result to the dentist is that there are fewer refusals and the children will undergo the inconvenience and disagreeableness of the dental drill in order to ensure the possession of sound efficient teeth. One result of a large percentage of refusals of treatment is the addition which it makes to the dentist's difficulty in arranging his work. His stay at a school is shorter—more frequent removals of equipment ensue, resulting in a greater number of "broken days" and a loss of time given to purely professional work.

Outside the routine age groups a considerable number of non-routine children have been treated: (1) on the recommendation of the School Medical Inspectors or (2) at their own request. These children may take up a disproportionately large amount of the dentist's time, but on the other hand this work has a wide educative effect, and, being done, as it is. for children above 6 and 7 years of age, it makes a greater and more lasting impression on the children. It is hoped that the dental treatment of school children to-day will lead to the next generation of parents regarding dental supervision of children's teeth as being of almost the same rank in importance as adequate feeding.

Mr. Townend has contributed an interesting essay on "Arrested Caries" and its relationship to dental disease:—

"I should like to bring before your notice a few observations on the subject of arrested caries. This condition, which has received scant attention at the hands of workers on the subject of dental disease, would appear to merit more detailed consideration, as it seems to have very considerable bearing on the subject of dental caries.

"This condition is commonly to be found in the temporary dentition and less frequently in the permanent. In the temporary dentition I have observed it in all the teeth, but its occurrence is more common in the molars. In some cases the area of arrested caries is limited to a comparatively small cavity, but in many cases the enamel appears to have been more or less completely stripped from the crown of the tooth by an acute and virulent attack of caries, and then a rapid resistance on the part of the body has recalcified the softened dentine, rendering it hard and polished and more or less immune to further decay except under certain conditions to which I shall refer later. If we could discover nature's mechanism for bringing about this extraordinary change it is obvious that we should have in our possession a most potent weapon to combat dental disease.

"The process of arrest of caries from the outside is frequently associated with increased activity of the odontoblast or dentine building cells and a consequent laying down of so-called "secondary dentine" in the pulp cavity.

"I have not seen arrest taking place in non-vital teeth, but dentine in which caries has been arrested may under certain conditions (such as mechanical stagnation of food or some chang in the physical well-being of the patient), again decay, and the pulp may die as a result of this. In teeth showing this condition one sometimes sees active caries taking place in the dentine at the dentine-enamel junction. This, I think, may be caused by the uneven wear of the dentine and enamel, causing a groove which mechanically retains fermenting carbohydrates and the consequent lactic acid decalcification of the dental tissues. In many cases, however, the enamel-dentine junction is quite intact. I have seen arrested caries in both rachitic temporary teeth and in teeth macroscopically sound.

“Everything in this condition seems to point to some increased resistance on the part of the organism. The original attack of caries seems to be closely associated with severe rachitis, or attacks of exanthematous fevers, both of which conditions are fertile factors in the causation of structural defects in the dental tissues, and this is little to be wondered at when we consider the fact that in the above-mentioned (and other) diseases the calcium metabolism of the body is very disturbed and disorganised. There is present calcium hunger and acidosis. The calcium content and the alkalinity of the saliva are considerably reduced, and recent work seems to indicate a derangement of the work of endocrine (internal secretory) glands being the primary factor in this disturbance of metabolism. The calcium has to come from somewhere and when the floating calcium of the system has been used up the bones and teeth suffer. How this calcium is withdrawn from the teeth is a difficult question to answer. That the amount may swing backwards and forwards seems to be shown by the fact I have mentioned above, i.e., the caries of arrested caries. This increased or decreased supply may be brought about by the agency of the saliva or by the blood stream. Many things seem to point to the agency of the saliva as a factor not to be lightly disregarded. For instance, a condition is frequently met with in interstitial cavities where one of the teeth has been lost or extracted. The remaining cavity, now freely exposed to the saliva and no longer a food trap, very often reacts and the caries in it becomes arrested. Also I have frequently seen temporary teeth showing arrested caries in the same mouth with “ 6 year molars ” actively decaying. May not this be because the temporary teeth have become, as it were, “ super calcified ” at a time when the permanent teeth were not erupted and not exposed to the action of the calcium giving saliva.

“It is interesting to note that an alteration in the composition of the saliva can and has been altered by the administration of suitable endocrine gland extracts. T. W. Brodrick has administered—

Ext. Parathyroid,
Ext. Ant. Pituitary.
Ext. Supra-Renal,

and in every case the alkalinity of the saliva has been increased along with the calcium index, and in one case he quotes the production of a condition very similar to arrested caries in a previously actively carious tooth.

" I feel that I have only touched the fringe of this interesting subject in these notes, but I am convinced that a closer study of these phenomena will explain many of the difficulties and answer many questions in the problem of dental caries. We have heard *ad nauseam* the " clean teeth—good teeth " slogan, but unfortunately this dictum is not borne out in practice. We see people with bad clean teeth and others with good dirty ones. The vitamin theory has many supporters, but leaves many questions unanswered. The issue is a complicated one, and many factors may play their part in it. Dental caries may be a very " mixed infection," but the fact remains that the susceptibility to dental caries varies greatly in individuals living under practically identical conditions and the subtle working or shirking of the endocrines may be the root cause of dental and many other diseases.

" The study of dental caries in its many aspects, including its preventive aspect, thus proceeds alongside the treatment of already existent decay.

9. OPEN-AIR EDUCATION.

This remains as before. No general developments in this direction have taken place. It is discouraging to find schools with windows which won't open. An authority on open-air schools says that in building such schools the aim should be to provide windows which won't close, not windows which will open, for in the latter case there will always be someone who will close them.

The Head Teacher of the Grimethorpe Council School (Boys') took 50 boys in August to camp for a week near Penistone.

10. PHYSICAL TRAINING.

During the year Dr. Lawrence had the opportunity of seeing the work of the Instructors training the teachers in Folk Dances. The work was enthusiastically carried out and the teachers will carry on the teaching in their own schools. That the aim and purpose of physical training is not universally understood seems clear from the incident which occurred at a rural school where the Head Teacher remarked, on the arrival of one of the organisers of physical training, that children who had walked three miles to school did not require physical training—an excellent example of missing the point. One School Medical Inspector comments on the bearing of children in rural districts:—" There " is a curious listlessness and want of energy about many of the " children in the rural schools. At playtime they are to be found " hanging about the doors and porches and when possible sitting " on the pipes. The children often show an irritating indolence " or lack of alertness both of mind and body, and it is quite usual " to have to repeat a statement or question once or twice before " any attempt is made to respond. If physical training pro- " duces a gain in alertness of mind and body, carriage, posture, " breathing habits, etc., then it is especially needed among these " rural children. The organised games designed to train chil-

" dren in observation and alertness are excellent and only require " closer supervision and adherence to rules to be productive of " good results." The same School Medical Inspector seems to have seen the obverse side of the medal, for he says, in discussing the spirit in which physical training is carried out:—" In this " respect, example is certainly better than precept. . . . . " The spectacle of a shivering teacher wrapping herself up in " outdoor things and leading a similarly attired string of children " to the playground is not inspiring, and it is little wonder if the " children fail to imbibe a love of healthy open-air exercises."

With regard to the listlessness of children it might be well to make enquiries, whenever this is noticeable, whether these listless children have been up early helping with milking or other similar occupations.

11. PROVISION OF MEALS.

The Provision of Meals Act has not been put into force in 1923 in the West Riding Administrative Area.

12. SCHOOL BATHS. (See 1922 Report.)

In Wombwell Schools there is a notice that the Public Baths are open to school children on Saturday mornings, and that for 2d. they can obtain a hot bath.

13. CO-OPERATION OF PARENTS.

The attendance of parents at inspections is encouraged in every way, and very few objections are raised to inspection, but in one district almost all the children down for inspection stayed away. This was due to a local agitator who appears to have convinced his neighbours that they had a grievance in their children being submitted to medical inspection.

14. CO-OPERATION OF TEACHERS.

This was mentioned in the 1922 Report, and my views on the subject have been widely quoted. One of the School Medical Inspectors at a conference suggested that further interest might be aroused if the Report of the Medical Officer to the Board of Education could be issued to Head Teachers. The Report could be read by all the staff. If that proposal were too costly in execution, he suggested that a copy should be available for a group of schools.

15. CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS. (See 1922 Report.)

16. CO-OPERATION OF VOLUNTARY BODIES. (See 1922 Report.)

16 (a). RELATION OF MEDICAL PRACTITIONERS.

Since its beginning the personnel and work of the Medical Inspection Staff has laboured under a sense of lukewarmness on the part of some Medical Practitioners, and has not received the degree of co-operation which might reasonably be expected. In the year 1923 one of the School Medical Inspectors recommended 273 children to be taken to the Tuberculosis Dispensary "with the permission of the Medical Attendant," and of this number 92 (32%) did not attend. Most of the latter gave the excuse "the private doctor says there is nothing wrong with me." In this year, however, four cases—in spite of the assurance that there was nothing wrong—**did** go to the Tuberculosis Dispensary and were diagnosed as definitely tubercular. It would be going too far to suggest wilful obstruction, but there does seem to be some lack of concrete knowledge of the purpose and aims of medical inspection. These aims are (1) Detection and (2) Prevention.

(1) This group cannot furnish any ground for misunderstanding, but in (2) the second group the aims may be imperfectly understood. It is the work of the Medical Inspector to look for the smallest sign of deviation from perfect health and to anticipate any such departure. With this aim he will point out apparently trivial matters to teachers and parents and enjoin their co-operation in watching for and forestalling further developments. This is the meaning of the second column of Table II:—"Cases not referred for treatment but to be kept under observation." These recommendations are not to be taken as "alarmist," but are intended to put parents and teachers on the alert—to foresee and to forestall developments. The very minuteness of the scrutiny and the pointing out of conditions which are trivial in themselves but indicative of further possibilities for evil sometimes leads to the work being unrealised. The School Medical Inspectors are in fact trying to get ahead of well-developed, manifest disease and to forestall its development by detecting the earliest manifestations and diminishing its opportunities, in short, exploring the borderland between health and disease. They are looking, not so much at the condition to-day, as the possible condition to-morrow.

17. BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN. (See 1922 Report.)

18. NURSERY SCHOOLS.

There are no Nursery Schools in the Administrative County.

19. SECONDARY SCHOOLS.

Secondary Schools are now examined in the Michaelmas Term and early in the Summer Term. The majority of the children enter in the Michaelmas Term when the school year begins. Children admitted during the Easter and the Summer Terms are examined in the Summer Term. It was found that by having a medical inspection each term the demand on the School Medical Inspectors' time was unduly large and put the Elementary Schools in an unfavourable position.

It has been well suggested that in addition to the present age groups, i.e., children 12 years old and children 15 years old, girls in Secondary Schools intending to proceed to Bingley Training College should be specially examined and reported on by the School Medical Inspector. The present practice is for candidates to be examined at their own expense by their own medical man or a medical man living in the same town. The results of this examination are entered on Form S(X) 110 and sent to the Secondary Department at Wakefield, where they are submitted to the School Medical Officer for scrutiny. Girls whose medical report presents some doubtful point are seen by the School Medical Officer or members of his staff and approved or rejected. The suggested practice would save the expense to the candidate of a medical examination and the standard of physical fitness for teaching would be more uniform when done by four or five School Medical Inspectors. The number to be examined would probably not exceed one hundred each year.

The number of departments inspected was: boys 34, and girls 34. The number of boys and girls examined was 3,667 routine cases, 420 special cases, and 117 re-examinations. The return of defects discovered is given in Table IIa.

School Medical Inspectors are of opinion that the standard of cleanliness of the hair is not what it should be considering the social standard and the superior education of the girls. With the fashion of wearing the hair "bobbed" the task of keeping it free from nits should be easy. I hardly dare mention "shingling," which would make it easier still. One of the School Medical Inspectors suggests that the Health Visitor should, with the concurrence of the Head Master or Mistress, make periodical visits of inspection to the Secondary Schools, as she does to the Elementary Schools.

The other findings are similar to those of previous years as compared with those of Elementary Schools, viz.: a preponderance of cases of defective vision, of minor deformities associated with rapid growth and defective posture, and of heart disease, both organic and functional.

20. CONTINUATION SCHOOLS. (See Report for 1922.)

21. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS. (See Report for 1922.)

22. MISCELLANEOUS WORK UNDERTAKEN BY THE SCHOOL MEDICAL STAFF.

The following enquiry was made by Dr. Lawrence in a district supplied by moorland water with plumbo-solvent properties requiring a special "plant" to destroy this plumbo-solvency. Water collected from the service pipes in private houses in this district had on analysis proved to contain a considerable quantity of lead, as much as 1/16 gr. to the gallon. It was not possible to examine adults, but 125 children from the Elementary Schools were examined.

Lead poisoning in circumstances which do not **seem** to provide opportunities for ingesting lead is usually very difficult to diagnose. In private practice such cases are usually under treatment for some time for colic, anæmia and constipation before a correct diagnosis is made. In this district a diagnosis was made by a dentist after a patient had been in indifferent health with a baffling combination of symptoms.

The early symptoms of lead poisoning are colic and constipation, preceded by anæmia and the development of an earthy tint on a skin which was previously clear.

A blue line develops on the gums at the edge, especially where the teeth are decayed and where food has facilities for lodging. This is due to the lead in the tissues being precipitated as sulphide by the hydrogen sulphide evolved by the decomposition of food. This line when present is diagnostic of lead poisoning. When examined by a lens it is seen to be made up of minute stippling.

Other symptoms are due to the selective action of lead on the nervous system. The muscles which extend the hands and fingers are most frequently affected, so that when the arms are held horizontally with the palms of the hands looking downwards the hands drop and cannot be raised. There may be headache, dizziness or sleeplessness, or even mental symptoms. There may be fleeting pains about the joints.

Older people, the subject of lead poisoning of any considerable duration, are prone to gout and tuberculosis of the lungs.

In some (generally advanced) cases there are microscopic alterations of the red corpuscles in the blood.

The above description is given to explain the line of enquiry followed. In all 125 children were examined. The examination consisted in a close interrogation of the children for a history of any of the following symptoms and a search for any of the objective signs of disease:—

History of Symptoms.

Pain in Abdomen Sickness Headache Constipation Loss of Colour Joint Pains	Especially if positive statement is supported by absence from school on account of symptom.

Examination for—

Anæmia.
Skin Changes.
Blue line on gums.
Paralysis of hands at wrists.
Alteration of vision.
(Blood Changes).

Of all the children examined 86 gave no symptom at all. The analysis of the remainder is as follows:—

One Symptom	Sickness only ...	6	In no case sufficient to keep the child from school
	Headache only	10	
	Abdominal pain only ...	5	
Two Symptoms	Sickness and Headache ...	5	
	Abdominal pain and Headache	5	
	Headache and Constipation	1	
Three Symptoms	Abdominal pain, Sickness and Headache	2	
	Abdominal pain, Headache and Constipation	1	
	Abdominal pain, Sickness and Constipation	1	
	Sickness, Headache, Loss of Colour	1	
Four Symptoms or more	Abdominal pain, Sickness, Headache, Constipation	1	
	Abdominal pain, Sickness, Headache, Lassitude	1	
	Weakness of Muscles of Wrist ...	1	

Blood specimens of the last eight cases were examined after staining with Jenner's stain. No punctate Basophilia was found and it was hardly expected that they would show changes. The last case—a boy who had general lassitude, weakness of muscles of hands and forearm, was rather pale and gave a history of abdominal pain, sickness and headache—was the only one about whom there was any real suspicion. He had a dusky line along the lower gum attributed to pyorrhœa but not the real blue line of lead poisoning. Mr. Raeburn—school dentist—had lately been working in that area, and in reply to the question whether he had in the course of his inspection seen anything suspicious of "blue line" on the gums, says he has not done so.

Conclusion.—Though several children presented suspicious combinations of symptoms it was in no case possible to make a positive diagnosis.

REPORT BY DR. A. W. FREW ON AN INVESTIGATION INTO THE QUESTION OF LEAD POISONING AMONGST SCHOOL CHILDREN.

The following report is negative as far as Lead Poisoning is concerned but presents interesting results on the comparative prevalence of Goitre in a number of widely scattered areas:—

It having been suggested that there was a probability of lead poisoning in the West Riding due to plumbo-solvency of the water, the following investigation was made amongst school children in different districts having different water supplies. One thousand children were examined in the Schools of an age between 8 and 14, particular attention being paid to the existence of the characteristic blue line on the gums, a history of colic or gastric disturbance, headache and anæmia. The masters and mistresses were interrogated at the same time concerning absence from school due to any of these causes, and reports from the children of vague attacks of illness were disregarded.

In no case could any suspicious sign or symptom be found leading to a diagnosis of incipient lead poisoning, the few examples of anæmia being due to other causes, but, as the following table shows, several rather important physical conditions were noted. In many of the schools the teeth were very badly decayed (although allowance must be made for the transition from temporary to permanent teeth) and showed total disregard for any system of cleanliness, the gums soft and sodden and the pharynx in many cases inflamed and congested.

A few cases of enlarged tonsils were found, but only in very few would operative measures be advised. One notable fact is the number of cases of enlarged thyroid, more prevalent in some districts than others, e.g., in the Askern district about 50% of both boys and girls are affected, due probably to the character of the water supply, which is derived from a bore well. This enlargement was in all cases quite apparent to the naked eye, in many cases really disfiguring. It was also noted than in a few cases the enlargement was unilateral.

School and Water Supply.	No. examined.	Sex.	Age.	Tonsils enlarged.	Adenoids present.	Pharyngitis present.	Teeth, 4 and more decayed.	Gums, soft and sodden.	Other mouth conditions.	Goitre. Slight.	Other physical conditions.	Remarks.
Church School, Ilkley Own water works	75	Boys	10–14	5–6·6%	1–1·3%	X 3–4% XX 2–2·6%	12 or 16% Dirty 5–6·6%	8–10·6%	—	X 2–2·6%	Heart Disease 3% Hunchback 3% Alopecia 3% M.D. 3%	
	75	Girls	8–14	6–8%	1–1·3%	X 4–5·6%	16–21·3% Dirty 9–12%	8–10·6%	—	X 10–13·3%	Enlarged cervical glands 4%	
North Parade, School, Otley Own water works	50	Boys	10–14	2–4%	—	X 7–14%	18–36% Dirty 7–14%	6–12%	—	X 3–6%	Squint 0·5 Herpes 0·5	
	50	Girls	10–14	2–4%	—	X 2–4%	17–34% Dirty 11–22%	—	—	XX 2–4% X 3–6%	Anæmia 1·0 Glass Eye 0·5 Blepharitis 0·5 Conjunctivitis 0·5	
Selby Road School, Askern Bore well at colliery	50	Boys	10–14	2–4%	—	2–4%	4–8% Dirty 15–30%	13–26%	—	X 18–36%	Op. for Wryneck 0·5	
	50	Girls	10–14	2–4%	—	3–6%	2–4% Dirty 4–8%	8–16%	—	X 24–48% XX 2–4%	Anæmia 1·0 Acne 0·5 Enlarged cervical gland 0·5	
Central School, Normanton Wakefield water	50	Boys	10–14	3–6% Slight 6–12%	2–4%	8–16%	8–16% Dirty, etc., 5–10%	12–24% 1 bleeding	—	X 3–6%	Otorrhœa 0·5 Bifid Uvula 0·5 Blepharitis 0·5 Stammer 0·5 Impetigo 0·5 X Glands 1·0	
	50	Girls	9–13	2–4% Slight 6–12%	1–2%	5–10%	5–10% Dirty several	5–10%	—	6–12%	Op. for mastoid 0·5 V.D.H. 0·5 Blepharitis 0·5 ? Phthisis 0·5 X Glands 1·5	
Church and Council Schools, Selby Own water works	50	Boys	11–14	6–12% Slight 6–12%	—	4–8% XX 1–2%	7–14% Dirty 20–40%	14–28%	—	—	Wryneck 0·5 X Glands 1·0	
	50	Girls	11–14	5–10% X 8–16%	1–2%	7–14%	9–18% Dirty 18–36%	15–30% Excoriation of cheek, 1. Gum Boil, 1.	—	X 9–18%	Acne 0·5 Blepharitis 0·5 Herpes 0·5 X Glands 0·5	
Lees Council School, Haworth Springs and wells, some from Keighley	25	Boys	11–14	—	—	X 4–16%	7–28% Dirty 2–8%	7–28%	—	3–12%	X Glands 4–16%	
	25	Girls	10–13	XX 1–4% Slight 2-8%	—	2-8%	7–28% Dirty several 2 with ulcers	4–16%	—	4–16%	X Gland 1–4% Deflected nasal septum 0·5	
Council School, Rothwell Leeds and Morley supply	50	Boys	10–14	4–8%	—	—	13–26%	4–8% 1 Abscess	—	X 2–4%	Anæmia 0·5 Blepharitis 0·5 V.D.H. 0·5 X Glands 0·5	
	50	Girls	11–14	4–8%	—	2–4%	10–20% Dirty many Irreg. many	13–26%	—	5–10%	Anæmia 0·5 X Glands 0·5	
High Street, Heckmondwike Heckmondwike and Dewsbury Joint Water Board	25	Boys	12–14	1–4%	—	1–4%	9–36%	1–4%	—	3–12%	—	
	25	Girls	12–14	Slight 15–20%	—	—	7–28%	4–16% 1 Abscess	—	2–8%	—	
Battye Street, Heckmondwike Heckmondwike and Dewsbury Joint Water Board	50	Boys	8–10	4XX–8% 7X–14%	1–2%	—	35–70% Irregular and dirty. Transition period.	1–2% 2 Septic	—	2–4%	Blepharitis 4–8% Eczema Inft. Paralysis M.D.	
	50	Girls	8–10	5XX–10% 6X–12%	3–6%	5–10%	19–38%	4–8% 1 Septic	—	2–4% 1 XX	Epileptic 0·5 Rickets 0·5 Deaf & Dumb 0·5	
Church School, Horbury As above, with some from Halifax	50	Boys	10–14	4–8%	—	7 S1–14% 1 XX	20–40% Many dirty and irregular.	7–14%	—	3–6% 1 XX	Deflected Septum Wryneck Inf. Paralysis Impetigo	
	50	Girls	8–14	1XX–2% 6 Slight	2–4%	9–18%	18–36% Many dirty and irregular	2–4% 1 Abscess	—	7–14%	Blepharitis 1·5 Impetigo Malnutrition 1·0	
Council School, Horbury As above	25	Boys	12–14	Slight 1–4%	—	5–20%	3–12% Irregular 3.	2–8% 2 Abscess	—	1–4%	Bifid Uvula 0·5	
	25	Girls	11–13	Slight 3–12%	—	3–12%	7–28% Irregular 3. Several dirty	4–16%	—	3	Ganglion, large facial scar	

Dr. Watson has collected and observed cases of Nervous children and has made minute enquiries into the subject of heredity and environment in the production of the Nervous child. His conclusions lead him to think that by altering the environment and by firm, common-sense control, tinctured by sympathy, the child can be helped to overcome the handicap of a nervous inheritance.

SPECIAL REPORT ON THE NERVOUS CHILD.

By Dr. W. B. Watson, School Medical Inspector.

The so-called "Nervous" child appears with such persistency in the course of school medical inspection that it was thought an investigation into the circumstances of these cases might furnish some facts of interest and importance. Difficulty was encountered at the start in drawing up a schedule which would include all the data desired, especially as the time at one's disposal during inspection of small schools is limited. Subjective and objective information had to be included, as well as hearsay evidence, and in some cases it was found that the desired information was quite unobtainable. One or two of the desirable records had to be omitted as difficulty was found in putting the desired questions without arousing the suspicion and hostility of the parents. I was sorry that the question of the mother's occupation before marriage came into this category, as I had anticipated it would have a distinct bearing on the results. Some of the information is, of course, not very reliable, and much of it is very incomplete, but a study of the cases investigated shows some interesting features. Of course, the cases were taken haphazard, without any attempt to determine beforehand the nature of the alleged "nervousness," with the result that various types have been included. Again, data relating to both cause and effect have been collected together and appear intermixed in the same table.

Some of the cases were of great interest and warranted further investigation and observation. Fortunately in the case of one of the most interesting this is possible and the child is brought to the School Clinic occasionally for observation and report. This is No. 16 in the table. This child is precocious in most things, although backward in some, e.g., arithmetic. He is markedly old-fashioned and almost uncontrollable, having very definite ideas about most things and refusing to be thwarted. For example, if he decides that he will not go to school on a certain day, all the efforts of the parents, teacher and attendance officer (he lives near the school) will not avail to alter his intention. He will stand his ground and argue with them wholeheartedly and with conviction, and not with the sullen obstinacy and negativism of the typical nervous child. His manner and speech are precocious, the latter showing a most amusing pedantry and precision. Like many other nervous children he will not associate with his fellows. An attempt was made to break him of this trait by inviting other children to the home. This met with no objection, but after the others had started a game he would retire to a secluded spot and indulge in his own pursuits. His sleep is broken and he wakes tired, and an attempt is being made at present to watch him during the night, as there is a suspicion of masturbation, and possibly minor epilepsy. In support of the latter suspicion it is noticed that in school his progress has not been so good of late and he appears dull at times. Fortunately in this case the mother is of fairly good intelligence and is making a commendable effort to help in the investigation of the case, although the worry of rearing such a child must perforce show itself in undesirable ways before the child himself.

Another case of special interest is No. 6, where the mother has Graves' disease. However great a part a nervous diathesis may play in the induction of this disease, it seems certain that, so far as environment alone is concerned, the presence of a parent suffering with this disease is inimical to the well-being of the child. Before the commencement of this investigation I met with a similar case, where a family of what appeared would have been healthy children were suffering from contact with a mother who had this disease and who spent her day worrying and fretting over the children and calling them to her bedside to minister to her wants and to listen to her troubles. She was firmly convinced that heart trouble was deeply rooted in the family, and, in consequence, the children were coddled and often kept from school on account of imaginary weak hearts. Weak hearts they probably had, for they were definitely asthenic.

Nos. 1 and 7 represent another distinct type, that of the mentally backward who often show a nervous instability as well. In the case of No. 7, and probably in the case of No. 1 also, there was evidence of faulty environment as well.

Taking the data seriatim, let us analyse the findings and then see if any definite conclusions can be drawn, whether with regard to cause or effect.

With regard to nutrition and general health, we find that (1) 22·2% showed very good nutrition, and the same cases had a record of very good health; (2) 38·8% were of average nutrition; while (3) the same percentage were below the average, some definitely ill-nourished. Of the total investigated, 55% had a history of only fair or poor health.

Temperament is a difficult thing to judge and classify quickly, but with due allowances it is significant that only one (No. 11) out of the 18 appeared definitely phlegmatic, and in this case the mother volunteered the information that the boy was perfectly normal until a year or two ago, when she herself commenced to worry and fret.

Only two cases (already referred to) were below the normal in intelligence and some were definitely precocious, a very common finding in nervous children.

77·7% were classed as definitely emotional or hysterical, and this number would probably have been greater if the examination had been more complete. With regard to neuroses, only in three cases could a record of such not be obtained. Perhaps this manifestation was more general than any other obtainable and took various forms. Night terrors were common and so also fear of the dark, fear of dogs, and fear of closed places. Most of the phobias bore a relation to bed and sleep, around which congregate at the same time so many of the neuroses and so many of the errors in upbringing associated with the nervous child. In each of the three exceptional cases referred to the sleep was reported as normal. In most cases the child has to be seen to bed, a light left burning, and frequent visits paid to the room until sleep is induced. Of course as a consequence the custom is to have the child in the same room as the parents. Owing to the trouble of this nightly ceremony the custom prevails of letting the child remain up until the parents' bedtime approaches, which leads to the further evil practice of late supper, which adds to the incidence of night-terrors and restlessness. No. 18, a boy of 12, had to be seen to bed every night and never went out at night after dark. No. 9, perhaps the worst case seen, had an astonishing history as regards sleep. The mother said that as an infant the child slept only about twenty minutes at a time, and for a year the mother slept with the child in her arms. At present she sleeps in a cot by the bedside and is frequently taken in beside the mother. The father in this case is on night duty, and the mother spends her whole day (and night) looking after the child, and, except until recently when the child started school, has been in the habit of not allowing the child out of her sight.

Only 4, or 22·2%, gave any history of bladder trouble, varying from late control to enuresis.

The next consideration, that of the number in the family, provides food for reflection. 55·5% were "only" children. In the case of two this is not strictly correct, but for practical purposes may be taken as so. No. 5 has two grown-up step-brothers or sisters, and No. 17 has a baby sister aged two months. Of the rest, one had three in the family and the remainder two.

The age of the parents was not always easily ascertainable, but the statistics given may be taken as fairly accurate in the average. If, from the statistics, the average age of the mother be taken as 39 and the average age of the child as 7, it will be seen that the average age of the mother at the birth of the child is 32.

In regard to social position, 61% might be taken as belonging to homes of respectable, good class people; 28% to average working class homes; and the remainder to homes of a poorer type.

The results of investigation into the health and temperament of parents proved rather unreliable, but there was a history of some nervous disability, functional or organic, in one or other of the parents in 72·2%. In many cases, of course, this amounted to nothing more than a slightly unstable nervous system with impatient and worrying temperament. In the same way it was difficult to decide the question of a distinct nervous inheritance. In the case of No. 14 the mother was brought up in an inn belonging to her parents and she had led a very active and sporting life, being a daring and enthusiastic horse-rider before marriage. After marriage, when presumably her activities were curtailed, she developed a neurotic tendency which progressed until she attempted suicide and was within an ace of being certified as insane.

Conclusions.—What conclusions, if any, can we safely draw from these findings? Small as is the number of cases and inaccurate and incomplete as must be the history obtained, I think we can venture to formulate one or two theories with regard to the etiology of the so-called " nervous " condition of some school-children, and to discuss the clinical manifestations.

Speaking generally, I think it may safely be asserted that a large majority (over 75%) of the cases belonged to the class of " nervous children " commonly understood when that term is used. That is to say, they were fairly normal children except for a nervous temperament readily susceptible to the influence of faulty environment and training.

The Typical Nervous Child.—Let us discuss this class first. These children have the potentialities of first-class citizens if they are fortunate enough to be born into homes where their make-up can be appreciated. Indeed, several of the cases seen would not have appeared abnormal at all but for the development of their morbid tendencies under the parents' influence. As a rule they are keen, energetic, and forceful, and likely to make their way in the world if carefully guided. Fortunately in most cases the tendency is for adolescence to emancipate them from the worry and unrest which adversely influences them in their younger days. It is only when they reach puberty without having safely escaped from the effects of bad environment that grave danger exists of their childish neuroses giving place to those of a more harmful and permanent nature. It will be noticed that only two of the cases seen were in children of the " leavers' " group.

General Health.—As is only to be expected, the bodily condition tends to keep pace with the nervous and mental. The tendency is for these children to be spare and ill-nourished, and they suffer from frequent minor maladies. My statistics do not lend great support to this statement, but they serve to emphasise a point I should like to mention, viz., that the majority of the children I examined were not nervous wrecks but more the victims of faulty environment, with, of course, the nervous temperament which makes them specially susceptible.

Home Influence.—This home influence, whatever the temperament of the child or whatever its nervous inheritance—and it is difficult to separate the two, for what the parents have bequeathed they are manifesting every day—undoubtedly stands out as the most convincing factor in the whole situation. Under this heading we can group in the above table, (1) number in family, (2) age of parents, (3) social position, (4) father's and mother's health and temperament, (5) mother's occupation.

55% were "only" children, or practically so; and of the rest, in only one case were there more than two. But not all these children were petted and pampered. This investigation has taught me to have more sympathy with both parents and child when the latter is alone. It seems difficult for the child to escape reacting to the constant "grown-up" environment. But if there is often no culpable spoiling on the part of the parents, there is a regrettable absence of proper appreciation of the condition when it is pointed out to them. Amongst the upper classes it may be possible to enlist the co-operation of the parents in the treatment of these cases, although even here great hopes cannot be entertained. But amongst the working people it is almost impossible to expect any co-operation. Far easier would it be to treat some serious physical disability than to undertake the cure of one of these nervous cases. Fortunately in the lower classes the condition is not so common, and here also the children after school age are in other hands for the greater part of the day. It will be noticed that more than half of the cases encountered (61%) belonged to better class working people, and that, almost without exception, the mother was at home. This undoubtedly emphasises the importance of what might be termed a "healthy neglect" in the rearing of children. It will be noticed that where a child belonged to a poor home, the mother was harassed, fussy and irritable. It will also be noticed how frequently the mother or father was of a nervous type. In no case can I remember seeing a mother who had a phlegmatic temperament and a care-free appearance.

It is generally conceded that the older the parents, the greater tendency for the child to grow up abnormal in deportment and temperament. My statistics support this, for in no case did I find the mother very young, and in nearly all she was old, considering her social position, when her first child was born. Whatever harmful results, and they are many, we may attribute to the careless, uneducated mother of immature experience, I do not think the propagation of the nervous child is one of them.

Clinical Manifestations.—With regard to the manifestations of an unstable nervous system, which worry the parents and stamp the child as abnormal to the physician's eye, I have already mentioned the various neuroses, the hysteria, bad temper, and "negativism." Others are, fickle appetite, constipation, poor physique with a tendency to spinal curvature, protuberant abdomen and other postural defects; frequency of micturition, with a tendency to enuresis, croup in younger children, sometimes functional cardiac disorders. None of these is very serious when occurring alone, but the unfortunate victim of their combination is usually a much less happy child than his fellow, and it is earnestly to be desired that he be cured of his condition as early in life as possible.

Treatment.—As the production of " Nervousness " in children is largely due to their environment and the factor in environment which is the most powerful exciting cause is the fussiness of parents, a change of environment is often the best course of treatment. The parents can hardly at their time of life be expected to change their habits.

These children need sympathy and understanding on the part of the teacher. They should be observed but not discussed in their own hearing, as the latter practice increases their egotism, the gratification of which is one of the commonest motives of their eccentric and unsocial behaviour. In the hand of an unsympathetic teacher a child who does not conform to the common mould is likely to be rendered miserable—to become solitary and introspective—the very antithesis of good treatment.

A child requires encouragement to believe in himself and in his ability to do the things which other children do with apparent ease and which he himself is by his nervousness inhibited from doing. It is especially desirable to overcome these inhibitions before the child reaches the Secondary School, so that he may take his full part in games and other social activities, and the changes of adolescence will find him with outlets along which the new impulses may be sublimated.

Whatever part the ductless glands or other bodily factors may play in the creation of the condition, as suggested in recent contributions on the subject, I cannot see but that in typical cases, just as the disability has been encouraged (if not entirely brought about) by faulty environment, so by the removal of this, and by the supplying of healthy influences in its stead, a cure may reasonably be expected.

What one cannot explain to parents in a few minutes might be supplied in pamphlet form for their careful perusal at home, but I know of nothing of the kind we could recommend.

Atypical Cases.—Of the atypical cases in the table, little need be said. All, I think, show some reaction to faulty environment, but they also required other lines of treatment. In the case of No. 14 little can be expected from home treatment, and, with the strong hereditary stigma, the prognosis is not good. No. 16, I feel, may eventually have to be removed to an institution if his abnormality continues to progress at its present rate.

No.	Sex.	Age.	Build and nutrition.	General Health.	Temperament.	School Progress and Intelligence.	Emotion and Hysteria.	Complexion.	Neuroses.	Sleep.	Reflexes, Organic and Superficial.	No. position in Family.	Age of Parents.	Social Position.	F. & M. Health and Temperament.	Mother's occupation.	Nervous Inheritance.	Other Notes.
1	F	8	1 average	good	sanguine	dull and backward.	—	dark. high colour.	phobias.	will not sleep alone.	late in acquiring control.	alone.	M. 45-50.	2	reported average.	home.	—	
2	F	6	2 spare	poor	markedly nervous	backward (absence) bright.	very emotional.	fair. pale.	—	fairly good.	superficial. exaggerated.	2 1st child. (2nd 2 yrs.).	M. 40.	1 (very good).	M. highly strung. F. normal.	home.	—	Heart, nervous type.
3	F	8	1 (anæmic)	fair	nervous	normal.	—	pale.	night terrors. claustrophobia & other phobias.	disturbed and fretful.	superficial exag. frequently of micturition.	alone.	F. 39. M. 37.	1 (very good).	F. healthy. M. often ailing, highly strung.	home (takes in visitors).	yes.	
4	F	6	1 average	good	nervous	normal.	very emotional & hysterical.	fair. high colour.	many phobias. afraid of the unfamiliar.	late hours. slow in falling asleep.	normal.	2 1st child. (2nd 2½ yrs.).	M. 45.	1 (very good).	F. healthy. M. healthy, nervous.	home.	—	Spoiled child, probably environmental.
5	F	8	1 average	good	sanguine	normal.	very emotional.	fair. high colour.	many phobias.	disturbed.	—	3 * 3rd child.	—	3	M. healthy, fussy, worrying, unduly careful.	home.	—	* Other two grown up (by former husband), occasional dysphagia, restless and hyperactive, environmental.
6	F	7	2 spare	fair	nervous	very good. precocious.	very emotional.	fair. pale.	masturbation.	—	—	alone.	F. & M. 38	2 (working class).	F. good. M. highly nervous. (Graves' disease).	home.	yes.	Functional cardiac bruit, tachycardia, environmental and inherited.
7	F	8	2 spare	fair	nervous	very backward. very dull.	emotional. hysterical.	dark. " muddy."	many.	normal.	superficial exaggerated.	alone.	F. & M. 35	2 (working class).	unknown.	home.	—	Postural defects, fine tremors, late in walking and talking, spoiled also.
8	F	5	1 spare	delicate	nervous	very good. precocious.	—	fair. pale.	nil.	normal.	normal.	alone. (a twin).	M. 33.	3	M. harassed and worried.	home.	—	Probably entirely environmental.
9	F	5	1 average	fair	nervous	normal.	nil.	dark.	many.	very broken and disturbed. Bad history since birth.	normal.	alone.	M. 40.	2	F. fair. M. good, very nervous.	home.	—	Constipation, convulsions in infancy, not often out of mother's sight.
10	M	5	1 plump	very good	nervous	not often at school. normal.	hysterical.	dark. high colour.	many.	good when induced but must be seen to sleep.	normal.	2 2nd child (1st 10 yrs.).	F. & M. 40.	1 (very good).	normal.	home (farm).	—	Entirely environmental, spoiled child.
11	M	8	1 plump	very good	phlegmatic	very good. very good.	occasional hysteria.	fair. high colour.	a few minor phobias, e.g., fear of house burning.	disturbed.	normal.	2 2nd child.	M. 35.	1 (very good).	M. worried and harassed.	home.	—	Croup, nervousness came on a year or two ago when mother commenced to worry, difficulty with food.
12	M	6	1 average	fair	sanguine	very good. precocious.	emotional.	dark.	nil.	fairly good.	bladder sensitive and hyperactive.	3 middle of 3 boys.	F. & M. 40.	1 (very good).	both healthy, but both neurotic.	home.	yes.	Neurotic family, signs of premature old age in parents.
13	M	5	1 average	fair	nervous	fair. fair.	hysterical.	fair. pale.	many.	difficult.	enuresis (now disappearing)	2 1st child.	M. 40.	2 (working class).	F. normal. M. pale, nervous.	home.	yes (strong).	
14	M	5	1 spare	good	nervous	excellent.	emotional & hysterical.	fair. high colour.	strong neuroses.	difficult.	normal.	alone.	M. 35.	1 (very good).	F. normal. M. very neurotic (at'mpted suicide).	home.	yes (strong).	" Anorexia " (great difficulty), bad temper, worries about school, negativism marked.
15	M	12	1 plump	very good	sanguine	average.	very emotional & hysterical.	fair. high colour.	nil known.	normal.	normal.	2 1st child	M. 48.	1 (good).	M. and F. healthy, but of nervous type.	shop.	yes.	Sensitive, often weeps.
16	M	9	2 spare	poor	nervous	good. precocious in some things, backward in others.	emotional and bad-tempered.	fair. pale.	markedly neurotic. many phobias. ?masturbation.	very disturbed.	normal.	2 1st child (2nd 7 yrs.).	M. 40.	1 (good).	F. good. M. good, a little nervous.	home.	yes.	Chr. diarrhœa, cunning, deceitful, very abnormal boy, suspicion of petit mal epilepsy.
17	M	4	1 spare	fair	nervous	excellent.	emotional & hysterical.	fair. pale.	phobias.	fair.	normal.	2 1st child (2nd 2/12 yrs.).	M. 38.	1 (very good).	normal.	home.	yes.	Constipation, nervous as a baby, has been brought up with 3 adults, including grandmother.
18	M	12	1 plump	very good	nervous	very good.	emotional & hysterical.	fair. high colour.	many.	broken and disturbed by dreams.	normal.	alone.	?	1 (very good).	F. heart trouble. M. admittedly nervous.	home.	—	Constipation, environmental, nervous since infancy, cried a lot and difficult to rear.

BINGLEY TRAINING COLLEGE.

Special visits were paid to the College in May by Dr. Nora Allan to examine 83 students who were about to complete their second year of training.

The candidates, after examination, were placed in the following classes:—A 1, 57; A 2, 25; B 3, 1.

In September Dr. Allan again went to the College and 101 newly admitted students were examined. These were classified as follows:—A 1, 73; A 2, 28.

Medical Certificates were submitted to the School Medical Officer for scrutiny in respect of 478 candidates for appointment as Bursars and Student Teachers, and of this number six were rejected. In addition 93 certificates were submitted on behalf of applicants for admission to Bingley Training College, and two were rejected.

CLINICAL PATHOLOGY.

The following specimens were taken by the School Medical Staff and submitted to the County Laboratorv for examination:—

Throat Swabs	26
Hairs and Scales for ringworm	966
Total	992

SPECIAL EXAMINATIONS WERE MADE DURING THE YEAR, AS FOLLOWS:—

(a)	Cases examined under the Mental Deficiency Act, The Defective and Epileptic Children Act, or the Blind and Deaf Children Act	323
(b)	School Absentees	250
(c)	Teachers, Caretakers, Candidates and others ...	132
		705

Dr. Lawrence and myself have visited all the School Medical Staff at work during the year.

I must take this opportunity of thanking the whole of the staff for their loyal co-operation during the year, and particularly Dr. Lawrence, who has been largely responsible for the compilation of this report.

JAMES ROBT. KAYE,
School Medical Officer.

County Hall, Wakefield,
April, 1924.

West Riding County Council. Medical Inspection Department.

Table 1.—Return of Medical Inspections (Elementary).

A. Routine Medical Inspections.

Entrants	14476
Intermediates	21791
Leavers	18982
Total ...	55249

B. Other Inspections.

Number of Special Inspections	8324
Number of Re-inspections	8339
Total ...	16663

Table 1(a).—Return of Medical Inspections (Secondary).

A. Routine Medical Inspections.

Entrants	2308
Age Group 15	1577
Total ...	3885

B.—Other Inspections.

Number of Special Inspections	251
Number of Re-inspections	263
Total ...	514

West Riding County Council. **Medical Inspection Department.**

Table IV.—Treatment of Defects of Children during 1923.

A.—Treatment of Minor Ailments.

Disease or Defect.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	Total.
Skin—				
Ringworm, Head ...	1786	1610	38	1648
Ringworm, Body ...	865	786	43	829
Scabies	328	272	17	289
Impetigo	5438	5272	85	5357
Minor Injuries	4593	4436	63	4499
Other skin diseases ...	2482	2041	326	2367
Ear Disease	2348	1820	433	2253
Eye Disease (external and other)	2893	2588	216	2804
Miscellaneous	7943	7727	185	7912
Totals ...	28676	26552	1406	27958

B.—Treatment of Visual Defect.

Referred for refraction.	Number of Children.							
	Submitted to refraction.				For whom glasses were prescribed.	For whom glasses were provided.	Recommended for treatment. other than by glasses.	For whom no treatment was considered necessary.
	Under Local Education Authority's Scheme Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.				
7363	2487	400	—	2887	2355	1247	30	465

C.—Treatment of Defects of Nose and Throat.

	NUMBER OF CHILDREN.			
	Received Operative Treatment.			
Referred for Treatment.	Under Local Education Authority's Scheme, Clinic or Hospital.	By Private Practitioner or Hospital.	Total.	Received other forms of Treatment.
4391	214	1263	1477	?

D.—Treatment of Dental Defects.

1. Number of Children dealt with :—

	Routine.	Specials.	Total.
(a) Inspected by Dentists ...	16637	15406	32043
(b) Referred for Treatment	10981	10843	21824
(c) Actually Treated ...	6729	5965	12694
(d) Re-treated (result of periodical examination)	958	—	958

It is understood that cases under this head are also included under (c) above.

2. Particulars of time given and of operations undertaken :—

No. of half-days devoted to inspection.	No. of half-days devoted to treatment.	Total number of attendances made by the Children at the Clinics.	No. of Permanent Teeth.		No. of Temporary Teeth.		Total number of Fillings.	No. of administrations of general anæsthetics included in (4) and (6).	No. of other operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth.
1	2	3	4	5	6	7	8	9	10	11
722	1778	13114	2846	4022	24171	2296	6318	1778	1622	1318

West Riding County Council. **Medical Inspection Department.**

TABLE II.

Return of Defects found in the course of Medical Inspection of Elementary School Children in 1923.

DEFECT OR DISEASE.			Routine Inspections.		Specials.	
			Number referred for treatment.	No. requiring to be kept under observation, but not referred for treatment.	Number referred for treatment.	No. requiring to be kept under observation, but not referred for treatment.
Malnutrition			1904	331	112	26
Uncleanliness		Head	3676	285	764	53
		Body	844	50	117	19
Skin	Ringworm	Head	378	29	328	24
		Body	44	2	21	1
	Scabies		48	28	20	1
	Impetigo		366	61	161	2
	Other Diseases (Non-Tubercular)		383	142	258	31
Eyes	Blepharitis		646	126	174	20
	Conjunctivitis		154	26	67	—
	Keratitis		2	1	3	—
	Corneal Ulcer		12	—	32	—
	Corneal Opacities		23	5	12	2
	Defective Vision		4987	569	1334	266
	Squint		747	66	295	26
	Other Conditions		57	26	57	13
Ears	Defective Hearing		149	42	139	29
	Otitis Media		372	33	169	7
	Other Ear Diseases		257	17	109	8
Nose and Throat.	Enlarged Tonsils		1800	2931	321	206
	Adenoids		663	448	265	44
	Enlarged Tonsils and Adenoids		430	177	141	15
	Other Conditions		500	159	291	167
Enlarged Cervical Glands (Non-Tubercular)			702	1006	123	61
Defective Speech			39	52	56	27
Defective Teeth			—	—	—	—
Heart and Circulation	Heart Disease	Organic	225	208	38	28
		Functional	150	308	10	16
	Anæmia		370	18	230	10
Lungs	Bronchitis		1206	123	85	13
	Other Non-Tubercular Diseases		1534	107	28	15
Tuberculosis.	Pulmonary	Definite	179	25	48	20
		Suspected	321	39	48	15
	Non-Pulmonary	Glands	100	33	46	9
		Spine	3	3	2	1
		Hip	6	1	—	3
		Other Bones and Joints	5	2	5	1
		Skin	16	—	8	2
		Other Forms	11	5	3	1
Nervous System	Epilepsy		18	13	8	13
	Chorea		20	14	11	5
	Other Conditions		73	99	24	10
Deformities	Rickets		65	59	13	3
	Spinal Curvature		186	81	42	15
	Other Forms		158	75	43	7
Other Defects and Diseases			610	382	581	310
Number of individual children having defects which required treatment or to be kept under observation			27938		7991	

TABLE IIa.

Return of Defects found in the course of Medical Inspection of Secondary School Children in 1923.

DEFECT OR DISEASE.			Routine Inspections.		Specials.	
			Number referred for treatment.	No. requiring to be kept under observation, but not referred for treatment.	Number referred for treatment.	No. requiring to be kept under observation, but not referred for treatment.
Malnutrition			220	31	5	—
Uncleanliness	Head		259	33	14	—
	Body		17	6	2	—
Skin	Ringworm	Head	7	—	3	—
		Body	2	—	—	—
	Scabies		1	—	—	—
	Impetigo		4	—	—	—
	Other Diseases (Non-Tubercular)		67	59	4	—
	Blepharitis		21	5	3	—
Eyes	Conjunctivitis		6	—	—	—
	Keratitis		—	—	—	—
	Corneal Ulcer		—	—	—	—
	Corneal Opacities		—	—	—	—
	Defective Vision		496	75	69	13
	Squint		13	2	3	—
	Other Conditions		1	1	—	—
Ears	Defective Hearing		21	—	3	1
	Otitis Media		19	1	5	—
	Other Ear Diseases		13	1	1	—
Nose and Throat.	Enlarged Tonsils		95	111	6	3
	Adenoids		39	9	1	—
	Enlarged Tonsils and Adenoids		27	5	4	—
	Other Conditions		46	15	8	1
Enlarged Cervical Glands (Non-Tubercular)			57	28	1	—
Defective Speech			3	2	1	—
Defective Teeth			—	—	—	—
Heart and Circulation	Heart Disease	Organic	18	30	3	3
		Functional	8	36	3	1
	Anæmia		18	—	29	—
Lungs	Bronchitis		17	1	2	—
	Other Non-Tubercular Diseases		35	4	2	1
Tuberculosis.	Pulmonary	Definite	1	—	—	—
		Suspected	14	4	—	—
	Non-Pulmonary	Glands	2	3	1	—
		Spine	—	—	—	—
		Hip	—	1	—	1
		Other Bones and Joints	—	—	1	—
		Skin	1	—	—	—
		Other Forms	—	—	—	—
Nervous System	Epilepsy		—	—	1	—
	Chorea		—	1	—	—
	Other Conditions		10	2	4	—
Deformities	Rickets		3	—	—	—
	Spinal Curvature		87	65	8	1
	Other Forms		45	11	6	1
Other Defects and Diseases			35	20	21	7
Number of individual children having defects which required treatment or to be kept under observation			2083		222	